

PATENT COOPERATION TREATY

Rec'd PCTO 31 JAN 2005

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

WRITTEN OPINION
(PCT Rule 66)

To:

BROOKHUIS, H., J., A.
Exter Polak & Charlouis B.V.
P.O. Box 3241
NL-2280 GE Rijswijk
PAYS-BAS

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REPLY DUE **within 3 month(s)**
from the above date of mailing

International application No. PCT/NL 02/00526	International filing date (day/month/year) 02.08.2002	Priority date (day/month/year) 02.08.2002
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International Patent Classification (IPC) or both national classification and IPC
B01J19/00

Applicant
AVANTIUM INTERNATIONAL B.V. et al.


1. This written opinion is the **first** drawn up by this International Preliminary Examining Authority.
2. This opinion contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application
3. The applicant is hereby **invited to reply** to this opinion.

When? See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

How? By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

Also: For an additional opportunity to submit amendments, see Rule 66.4.
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis.
For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.
4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 02.12.2004

<p>Name and mailing address of the international preliminary examining authority:</p> <p> European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465</p>	<p>Authorized Officer</p> <p>Huenges, A</p> <p>Formalities officer (incl. extension of time limits) Telephone No. +49 89 2399-</p>
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I. Basis of the opinion

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed"*):

Description, Pages

1-6 as originally filed

Claims, Numbers

1-25 as originally filed

Drawings, Sheets

1/3-3/3 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

5. ☐ This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

6. Additional observations, if necessary:

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	1-25
Inventive step (IS)	Claims	1-25
Industrial applicability (IA)	Claims	1-25

2. Citations and explanations**see separate sheet**

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Reference is made to the following documents:

D1: US-A-5866342

D5: WO-A-0141918

2. Plurality of independent claims

Although **claims 1, 14, 16, 17 and 23-25** have been drafted as separate independent claims, they all comprise the apparatus according to claim 1 or the use of said apparatus according to claim 23. Hence, apparatus claims 14, 16 and 17 should be made dependent on claim 1 and method claims 24 and 25 should be made dependent on claim 23.

3. Novelty and inventive step

3.1. Independent claims 1, 14, 16, 17 and 23-25

The subject-matter of **claims 1, 14, 17, 23 and 25** is **not novel**, Art. 33(2) PCT, and the subject-matter of **claims 16 and 24** does **not** involve an **inventive step**, Art. 33(3) PCT.

Regarding **claim 1**, document **D1** shows an assembly for performing parallel chemical experiments (col. 4, paragraph 2), said assembly comprising:

- a main body (72, fig. 4A) having a first and a second face on opposite sides thereof (see fig. 4A), multiple bores (30, fig. 4) extending through said main body,
- tubular liners (62, figs. 4, 4A) having openings at opposite ends thereof, each liner removably fitting in a bore in the main body (implicitly disclosed in col. 5, lines 28-39),
- first closure means (74, 58, 60, fig. 4A) for closing the openings of the liners at the first face of the main body (see fig. 4A),
- second closure means (70, 58, 60, fig. 4A) for closing the openings of the liners at the second face of the main body (see fig. 4A),

- said first and second closure means being fastenable to the main body, so that an experimentation chamber is defined within each liner (see col. 6, paragraph 4).

Regarding **claim 14**, document **D1** discloses a system comprising an experimentation assembly according to claim 1 (see the argumentation with respect to claim 1 above) and a filtration device (60, fig. 4A) having channels with inlets (40, fig. 4A) corresponding to the bores in the main body and a filter in each channel (see fig. 4).

The further features defined in claim 14 relate to the use of the apparatus rather than to the apparatus in terms of its technical features. These features are therefore not taken into consideration when judging novelty and inventive step of the apparatus. As document D1 discloses all features of claim 14 relating to the apparatus, claim 14 is not novel over D1.

Regarding **claim 16**, document **D1** shows an apparatus comprising an experimentation assembly according to claim 1 (see the argumentation with respect to claim 1 above) and a press device having a press member for pressing the liners into the main body (implicitly disclosed with the assembly of the reaction vessel block, see col. 5, lines 12-39).

The subject-matter of claim 16 differs therefrom in that a plurality of press members are provided. The problem to be solved by the present invention may therefore be regarded as the provision of an alternative press device for inserting the liners into the main body.

However, the use of a plurality of press members is merely one of two straightforward possibilities, one being the use of a single press member and one being the use of a plurality of press members, from which the skilled person would select in accordance with circumstances, without the exercise of inventive skill, in order to solve the problem posed.

The subject-matter of claim 16 does therefore not involve an inventive step (Article 33(3) PCT).

With respect to **claim 17**, document **D1** shows an experimentation assembly according to claim 1 (see the argumentation above) and heating means for heating the content in the experimentation chambers (col. 5, lines 40-50).

The subject-matter of claim 17 is not novel over document D1.

Regarding **claim 23**, document **D1** shows a method for performing parallel chemical experiments (col. 4, paragraph 2), wherein use is made of an assembly according to claim 1 (see the passages cited with respect to claim 1).

Regarding **claim 24**, document **D1** shows a method for performing parallel chemical experiments (col. 4, paragraph 2), wherein use is made of an assembly according to claim 14 (see the argumentation with respect to claim 14 above), whereby the filtration device is brought against the top face of the main body (col. 5, lines 27-29) and whereby the contents of the experimentation chambers enters the channels in the filtration device and is filtered (see col. 7, lines 39-46).

The subject-matter of claim 24 differs therefrom in that firstly the top cover plate of the experimentation assembly is removed and in that the apparatus is reversed before filtering (in D1 gas is introduced into the reaction chamber to expel fluid through the upper end of the chamber).

Regarding the removal of the top cover plate of the assembly, this feature is trivial when taking into account the presence of a top cover plate covering the entire apparatus.

Regarding the reversal of the apparatus, this feature is a well-known alternative to the introduction of gas in order to expel fluid from a chamber. Furthermore, inverting the reaction vessels in order to dispense fluid therefrom is known from document D5, see claim 28 of D5. It would be obvious to the person skilled in the art to apply this well-known alternative to the method of claim 24 in order to provide an alternative method for dispensing fluid from the reaction vessels. Hence, the subject-matter of claim 24 does not involve an inventive step over a combination of documents D1 and D5.

Regarding **claim 25**, document **D1** discloses the use of an assembly according to claim 1 for solid form screening of molecules (col. 1, lines 57-63).

3.2. Dependent claims 2-13, 15 and 18-22

Dependent **claims 2-13, 15 and 18-22** do not seem to contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step.

4. Industrial applicability

**WRITTEN OPINION
SEPARATE SHEET**

International application No. PCT/NL02/00526

The industrial applicability of the subject-matter of **claims 1-25** is beyond doubt,
Art. 33(4) PCT.